

# Iowa Department of Natural Resources

## Draft Title V Operating Permit Fact Sheet

This document has been prepared to fulfill the public participation requirements of 40 CFR Part 70 and 567 Iowa Administrative Code (IAC) 22.107(6). 40 CFR Part 70 contains operating permit regulations pursuant to Title V of the Clean Air Act.

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The Iowa Department of Natural Resources (IDNR) finds that:

1. Unverferth Manufacturing Company, Inc., located at 27612 Temple Ave., Shell Rock, IA 50670 has applied to renew their Title V Operating Permit. The designated responsible official of this facility is Mr. Michael Van Mill.
2. Unverferth Manufacturing Company, Inc. is a farm machinery and equipment manufacturer. This facility consists of 25 emission units with potential emissions of:

Pollutant	Abbreviation	Potential Emissions (Tons per Year)
Particulate Matter ( $\leq 10 \mu\text{m}$ )	PM <sub>10</sub>	31.34
Particulate Matter	PM	31.34
Sulfur Dioxide	SO <sub>2</sub>	1.11
Nitrogen Oxides	NO <sub>x</sub>	16.12
Volatile Organic Compounds	VOC	227.21
Carbon Monoxide	CO	2.19
Greenhouse Gases (mass basis)	GHG	10,618.23
Greenhouse Gases (CO <sub>2</sub> e basis)	GHG	10,618.23
Hazardous Air Pollutants <sup>(1)</sup>	HAP	14.41

<sup>(1)</sup> May include the following: cumene, ethylbenzene, hexamethylene-1-6-diisocyanate, manganese compounds, toluene and xylene.

3. Unverferth Manufacturing Company, Inc. submitted a Title V Operating Permit renewal application on October 30, 2012 and any additional information describing the facility on January 14, 2013. Based on the information provided in these documents, DNR has made an initial determination that the facility meets all the applicable criteria for the issuance of an operating permit specified in 567 IAC 22.107.
4. DNR has complied with the procedures set forth in 567 IAC 22.107, including those regarding public notice, opportunity for public hearing, and notification of EPA and surrounding state and local air pollution programs.

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IDNR procedures for reaching a final decision on the draft permit:

1. The public comment period for the proposed permit will run from November 14, 2013 through December 14, 2013. The beginning date of this public comment period also serves as the beginning of the U.S. Environmental Protection Agency's (EPA) 45-day review period, provided the EPA does not seek a separate review period. During this time, anyone may submit written comments on the permit. Mail signed comments to Dale Brunotte at the IDNR address shown below.
2. Written requests for a public hearing concerning the permit may also be submitted during the comment period. Any hearing request must state the person's interest in the subject matter, and the nature of the issues proposed to be raised at the hearing. IDNR will hold a public hearing upon finding, on the basis of requests, a significant degree of relevant public interest in a draft permit. Mail hearing requests to Dale Brunotte at the IDNR address shown below.
3. DNR will keep a record of the issues raised during the public participation process, and will prepare written responses to all comments received. The comments and responses will be compiled into a responsiveness summary document. After the close of the public comment period, DNR will make a final decision on the renewal application. The responsiveness summary and the final permit will be available to the public upon request.

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DNR concludes that:

1. DNR has authority under 455B.133 Code of Iowa to promulgate rules contained in 567 IAC Chapters 20-31, including, but not limited to, rules containing emission limits, providing for compliance schedules, compliance determination methods and issuance of permits.
2. DNR has the authority to issue operating permits for air contaminant sources and to include conditions in such permits under 455B.134 Code of Iowa.
3. The emission limits included in this permit are authorized by 455B.133 Code of Iowa and 567 IAC Chapters 20-31.
4. DNR is required to comply with 567 IAC Chapter 22 in conjunction with issuing a Title V Operating Permit.
5. The issuance of this permit does not preclude the DNR from pursuing enforcement action for any violation.

**Facility:** Unverferth Manufacturing Company, Inc.

**EIQ#:** 92-5194

**Facility #:** 12-04-005

**Reviewer:** Dale Brunotte

Unverferth Manufacturing Company, Inc. has applied for a second Part 70 Title V Permit renewal. The application was submitted on November 2, 2012.

The facility manufactures grain wagons, sprayers, and tillage machinery at their Shell Rock facility and has 24 emission sources and 30 insignificant sources.

Sources of emissions are exhaust from painting operations including paint booths, paint drying ovens, and paint mixing and storage rooms, welding operations, washing operations, and caulking.

The Responsible Official for the facility is Michael VanMill, the Operations Manager.

### Potential Emissions

Potential emissions were checked and corrected as necessary. Most of the emission sources had construction permits or requested throughput limits that set the potential emission limits of the most significant contaminants.

### Title V Applicability

Pollutant	Major for Title V?
PM <sub>10</sub>	<input type="checkbox"/>
SO <sub>2</sub>	<input type="checkbox"/>
NO <sub>x</sub>	<input type="checkbox"/>
VOC	<input checked="" type="checkbox"/>
CO	<input type="checkbox"/>
Lead	<input type="checkbox"/>
Individual HAP	<input checked="" type="checkbox"/>
Total HAPs	<input type="checkbox"/>
GHG	<input type="checkbox"/>

### Actual Emissions

The actual emissions were checked and corrected where necessary.

### Emission Sources

- **Paint Booths (EU-3A,C and D, EU-4A, B, C and D, EU 32A, C and D)** The old paint booth, Paint Booth 1, has been removed since the last permit was issued. The facility now has three wet paint booths, one with two stacks. They all have dry filters for control and construction permits with PM and PM<sub>10</sub> limits. Previous construction permits limited paint usage and solids and VOC contents of

the paints for booth 3, but the current permit only sets a facility-wide VOC limit of 225 tons/year for emissions from everything except powder coating and combustion. The paint booths are subject to 40 CFR 63 Subpart M, and the facility is apparently showing compliance through the use of compliant materials (no more than 2.6 pounds of organic HAP per gallon of coatings solids), but this only specified for the newest booth (EU-32). The Title V Permit requires our standard Spray Booth Filter Agency O&M Plan. The cure oven for booth 4 was included with the booth since it is inside booth 4.

- **Permitted Cure Ovens (EU-C1 and EU-C2)** These are a powder coat cure oven and paint line #3 cure oven. Both have construction permits with hourly PM and PM<sub>10</sub> limits as well as the default opacity, PM and SO<sub>2</sub> emission limits. These are subject to 40 CFR 63 Subpart M, and compliance is shown through the use of compliant materials in the paint booths.
- **Four Stage Washer System (EU-W3, EU-W3C and EU-W3D)** This newly installed system was originally omitted from the Title V application because it has minimal emissions and did not need a construction permit. The washing of materials prior to painting is subject to Subpart M, so the wash system is included in the permit. The system has two propane heaters that emit through separate stacks. They would be subject to the Boiler MACT (Subpart DDDDD) if they were not part of the washer, which makes them subject to M.
- **GMAW of Carbon Steel, Caulking and Clear Booth Coating (EU-5, EU-8 and EU-9)** These are three un-permitted, fugitive venting sources. They were all given throughput limits in the previous TV permits and during the last inspection by the Field Office, it was noted that the usage limit of solvent based coating for the clear booth coating operation had been exceeded, but the facility had previously asked for an increase in the limit in a Title V Modification request. The clear booth coating operation is the coating of light fixtures and windows in the spray booths to aid in cleaning, and is thus not subject to Subpart M since it doesn't involve the products that are manufactured at the plant. The throughput limits for the caulking and Clear Booth Coating were initially requested to keep the potential VOC emissions from the facility below 250 tons/year, but construction permits for the "new" paint booths and the modified permits for the old booth set a facility-wide VOC limit of 225 tons per 12-month rolling period for "all sources other than powder coating and combustion." Since emissions from the caulking and clear coat booth coating are included with the limit, there is no longer a need to place limits on the caulk or clear coat usage, so the facility requested not adding the limits in this permit.
- **Paint Kitchen (EU-20)** This paint storage room is no longer used, according to the facility, but it still has a construction permit and is subject to Subpart M, so it is included in the permit.

- **Manual Wash Bay 1 (EU-21)** This is a washer in which units are cleaned prior to painting, and it is thus subject to Subpart MMMM. Construction permits set PM and PM<sub>10</sub> limits as well as setting a no visible emissions indicator opacity and citing the 225 ton VOC facility-wide limit.
- **Dry Off Oven (EU-D1)** This propane-fired 2.4 MMBtu/hr oven is used to dry off equipment after it is washed. It has a construction permit with a no visible emissions indicator opacity limit and PM and PM<sub>10</sub> emission limits as well as the default SO<sub>2</sub> and 0.1 gr/dscf PM limits. The oven is subject to Subpart MMMM.
- **Wash Bay (EU-27) (EU-28)** This is an un-permitted wash bay that was included as an insignificant unit in the application, but is subject to Subpart MMMM.
- **Dry Off Oven (EU-28)** This is an un-permitted dry off oven that was included as an insignificant unit in the application, but is subject to Subpart MMMM. It has the default opacity, SO<sub>2</sub>, and PM emission limits.
- **Paint Booth #5 Cure Oven (EU-32B)** This curing oven vents through a different stack than paint booth 5, so it is not listed with the booth, but as a separate unit. It is subject to Subpart MMMM.
- **Paint Kitchen (EU-38)** This is an un-permitted paint and solvent storage room that was included as an insignificant unit in the application, but is subject to Subpart MMMM.

### Program Applicability

**CAM:** None of the emission sources at the facility are subject to CAM because uncontrolled PM and PM<sub>10</sub> emissions from all controlled units are less than 100 tons per year. The paint booths come closest to needing a CAM Plan, but the facility-wide VOC limit also effectively limits the potential PM and PM<sub>10</sub> emissions. For example, the worst case scenario, if only one paint booth is used and no VOCs are emitted from other sources, and if only the highest solids/lowest VOC paint is used, (46.28% VOC & paint weight of 8.9 lb/gal, or 4.12 lb VOC/gal and 4.78 lb solids per gallon) 109,223 gallons of this paint would contain 225 tons of VOC. With 65% spray efficiency 109223 gal\*4.78 lb solids/gal\*.35 overspray /2000 lb/ton = **91.36 tons.**

**Acid Rain:** The source is not subject.

**PSD:** This facility is not a major source of criteria air pollutants.

**Stratospheric Ozone:** Not subject.

**112(r):** Not subject.

**NSPS:** Not subject.

**NESHAP:** The Paint Booths, washers, drying and cure ovens and paint kitchens are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart M – Surface Coating of Miscellaneous Metal Parts and Products (40 CFR §63.3880 through 40 CFR §63.3981) and to NESHAP Subpart A - General Provisions (40 CFR §63.1 through 40 CFR §63.15). The facility is showing compliance through the use of compliant materials, so the ovens, washers and paint kitchens have no applicable requirements from Subpart M.